

GS-5 Certified: Increasing Soil Science Educational Opportunities Online for Undergraduate Students and USDA Employees

Proposal Number: 2008-02162

Amount: \$250,000



PI Dr. Heather Smith, Assistant Professor,
Riverside City College, Riverside, CA
Co-PI Dr. Victor Zordan, Assistant Professor
University of California, Riverside



USDA Collaborators

NRCS, Forest Service, and
USDA Salinity Lab (Riverside, CA)

USDA Mission Area

1. Strengthen institutional educational capacities including libraries, curriculum, faculty, scientific instrumentation, instruction delivery systems, recruitment and retention.
2. Attract and support underrepresented undergraduate and graduate students.
3. Facilitate cooperative initiatives between two or more Hispanic-Serving Institutions.

Objectives

This project addresses the strategic goal of the USDA "to enhance and diversify the Nation's scientific and professional work force in agricultural sciences" as well as the priority "to expand educational opportunities..."

with three specific aims:

1. Increase the availability of soil science courses by developing **low-cost online courses** offered through RCC's Open Campus and UC-Riverside Extension.
2. Increase visibility of soil science educational and employment opportunities through development of a **Soil Science Education (SSE) website** that serves as an information clearinghouse
3. Provide an experiential learning opportunity through the *GS-5 Certified Internship Program*: a **paid summer internship at a USDA facility** for outstanding online students who complete a soils course.



Activities

1. Five online soil science courses will be developed and offered to students at a low cost. Formal interactions and career mentoring from USDA (NRCS, Forest Service, and/or ARS Lab) personnel will be required for online students.
2. A 1-week paid internship with a USDA agency for 13 outstanding students who complete an online course.

Beneficiaries

1. Increase the number of underrepresented students will be able to qualify for entry-level employment as Soil Scientists (GS-470), Soil Conservationists (GS-457), or Range Conservationists (GS-454) with the USDA.
2. Increase the online soil science opportunities for current USDA employees requiring additional training.
3. Experiential learning opportunity for 13 outstanding students who complete an online course

Evaluation

Assessment Team will perform:

- Formative assessment of courses for students and faculty;
- Summative course assessment annually of students/faculty;
- Course evaluations at the end of each course;
- Student Course Enrollment and Completion Data;
- Evaluation of student internship participants and USDA mentors; and
- Short-term case studies of experiential learning program.

Expected Impact

Increasing number of underrepresented students who qualify for entry-level employment as Soil Scientists (GS-470), Soil Conservationists (GS-457), or Range Conservationists (GS-454) with the USDA.

Provide online soil science education opportunities for current USDA employees requiring additional training.